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| EXAMINER |
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

| | Application No. | Applicant(s) |
|---|---|---|
| | 10/576,789 | HASEGAWA ET AL. |
| **Office Action Summary** | Examiner | Art Unit | |
| | KHALID ABDALLA | 2419 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on <u>21 April 2006</u>.
2a)☐ This action is **FINAL**.    2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) <u>1-57</u> is/are pending in the application.
  4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) <u>1-57</u> is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  a)☒ All b)☐ Some * c)☐ None of:
    1.☒ Certified copies of the priority documents have been received.
    2.☐ Certified copies of the priority documents have been received in Application No. _____.
    3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
  * See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☒ Information Disclosure Statement(s) (PTO/SB/08)
  Paper No(s)/Mail Date <u>04/21/2006</u>.

4)☐ Interview Summary (PTO-413)
  Paper No(s)/Mail Date. _____
5)☐ Notice of Informal Patent Application
6)☐ Other: _____

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

1.    Claims2-4 and 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 2 recites the limitation "....the transport protocol....." in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 3 recites the limitation "....the smallest size....." in line 4. There is insufficient antecedent basis for this limitation in the claim.

Claim 4 recites the limitation "....the smallest size....." in line 5. There is insufficient antecedent basis for this limitation in the claim.

Claim 18 recites the limitation "....the transport protocol....." in line 3. There is insufficient antecedent basis for this limitation in the claim.

### *Claim Rejections - 35 USC § 102*

2.    The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3.    Claims1, 6, 8, 14-15, 17, 22, 24, 30-31and 50-54 are rejected under 35 U.S.C. 102(b) as being anticipated  by Dorward et al (US 20030018878 A1).

Regarding claim1 Dorward et al discloses a communication device (Fig. 2 shows server 104) comprising.

A memory (Fig. 2 shows a memory 202)

A processor (Fig. 2 shows a processor 200)

Wherein the processor is configured to execute instructions stored in the memory

to a function of storing (memory 202 stores one or more software programs which are

executable by the processor 200 in conjunction with provision of the archival data

storage techniques see [0025] lines 7-10)

divide original data into a plurality of blocks (the server 104, the storage of data blocks

is separated from the index used to locate the blocks, as is also

apparent from FIG. 1. More particularly, blocks are stored in an append-only log on

storage element 116. See [0041] lines1-5 and Fig. 5) and store information within a

header for restoring the plurality of blocks to the original data (Each data block is

prefixed by a header, denoted headers.sub.0, header.sub.1; etc.that describes the

contents of the corresponding block. The primary purpose of the block header is to

provide integrity checking during normal operation and to assist in data recovery see

[0043] lines 4-9).

 Regarding claim6 Dorward et al discloses a communication device (Fig. 2 shows

server 104) comprising.

A memory (Fig. 2 shows a memory 202); and

a processor (Fig. 2 shows a processor 200)

Wherein the processor is configured to execute instructions stored in the memory

(Moreover, memory 202 stores one or more software programs which are executable by

the processor 200 in conjunction with provision of the archival data storage techniques

see [0025] lines 7-10)

to receive a plurality of blocks and, based on information stored within a header, restore

the plurality of blocks to original data (Each data block is prefixed by a header, denoted

headers.sub.0, header.sub.1; etc.that describes the contents of the corresponding

block.  The primary purpose of the block header is to provide integrity checking during

normal operation and to assist in data recovery see [0043] lines 4-9).

   Regarding claim8 Dorward et al discloses a communication device (Fig. 2 shows

server 104), wherein the information stored within the header is stored in an option field

(header 308 of fig. 3 shows fields)  option the header (Each data block is prefixed by a

header, denoted headers.sub.0, header.sub.1, etc.that describes the contents of the

corresponding block.  The primary purpose of the block header is to provide integrity

checking during normal operation and to assist in data recovery see [0043] lines 4-9)

   Regarding claim14 Dorward et al discloses a communication device (Fig. 2 shows

server 104), wherein the processor (Fig. 2 shows a processor 200)

is further configured to execute instructions to transfer the plurality of blocks (memory

202 stores one or more software programs which are executable by the processor 200

in conjunction with provision of the archival data storage techniques see [0025] lines 7-

10) based on a communication rate (The write performance of the server is therefore

limited to the random access performance of the index 114, speedup in throughput can

be achieved by striping the index see [0055] lines 8-15)

Regarding claim15 Dorward et al discloses a communication device (Fig. 2 shows

server 104), wherein the original data is configured to be restored by referring to the

information for restoring the plurality of blocks to the original data within the header

(Each data block is prefixed by a header, denoted headers.sub.0, header.sub.1, etc.that

describes the contents of the corresponding block. The primary purpose of the block

header is to provide integrity checking during normal operation and to assist in data

recovery see [0043] lines 4-9)

Regarding claim17 Dorward et al discloses a method comprising:

using a communication device (Fig. 2 shows server 104) to:

divide original data into a plurality of blocks (the server 104, the storage of data blocks

is separated from the index used to locate the blocks, as is also

apparent from FIG. 1. More particularly, blocks are stored in an append-only log on

storage element 116. See [0041] lines1-5 and Fig. 5); and

store information within a header for restoring the plurality of blocks to the

original data (Each data block is prefixed by a header, denoted headers.sub.0,

header.sub.1; etc.that describes the contents of the corresponding block. The primary

purpose of the block header is to provide integrity checking during normal operation and

to assist in data recovery see [0043] lines 4-9)

Regarding claim22 Dorward et al discloses a communication method: comprising:

using a communication device (Fig. 2 shows server 104)to:

execute instructions stored in the memory (memory 202 stores one or more software

programs which are executable by the processor 200 in conjunction with provision of

the archival data storage techniques see [0025] lines 7-10)

to receive a plurality of blocks and, based on information stored within a header,

restore the plurality of blocks to original data (Each data block is prefixed by a header,

denoted headers.sub.0, header.sub.1; etc.that describes the contents of the

corresponding block.  The primary purpose of the block header is to provide integrity

checking during normal operation and to assist in data recovery see [0043] lines 4-9)

    Regarding claim24 Dorward et al discloses the method, wherein the information

stored within the header is stored in an option field (header 308 of fig. 3 shows fields)

of the  header (Each data block is prefixed by a header, denoted headers.sub.0,

header.sub.1, etc.that describes the contents of the corresponding block.  The primary

purpose of the block header is to provide integrity checking during normal operation and

to assist in data recovery see [0043] lines 4-9)

    Regarding claim 30 Dorward et al discloses the method, further comprising using the

communication device (Fig. 2 shows server 104) to transfer the plurality of blocks based

on a communication rate (The write performance of the server is therefore limited to the

random access performance of the index 114, speedup in throughput can be achieved

by striping the index see [0055] lines 8-15)

    Regarding claim31 Dorward et al discloses the method, wherein the original data is

configured to be restored by referring to the information for restoring the plurality of

blocks to the original data within the header (Each data block is prefixed by a header,

denoted headers.sub.0, header.sub.1, etc.that describes the contents of the

corresponding block.  The primary purpose of the block header is to provide integrity

checking during normal operation and to assist in data recovery see [0043] lines 4-9)

Regarding claim 50 Dorward et al discloses a communication device (Fig. 2 shows

server 104), wherein the communication device is a proxy server (the server 104 may

be distributed across multiple machines.  The approach of identifying data by a hash of

its contents simplifies such an extension. Such load balancing could even be hidden

from the client application by interposing a proxy server that performs this operation on

behalf of the client see [0076] lines 1-10).

Regarding claim 51 Dorward et al discloses a communication device (Fig. 2 shows

server 104), wherein the information stored within the header comprises a sequence

number and a block size (A given block header 308 includes a "magic" number, the

fingerprint of the data block, a user-supplied type identifier, the size of the data block,

the identity of the client device or other user that wrote the data block, and the time

when the block was first written, the latter being denoted "wtime." See [0045] lines 1-6)

Regarding claim52Dorward et al does not disclose the method wherein the

communication device receives the plurality of blocks at different communication rates.

Itakura et al from the same or similar endeavor teach (it is necessary for atransmission

side to generate data having different formats corresponding to the performance of data

receiving terminals or to prepare different data at the transmission rates of the data

receiving terminals.  When the above-described scalable encoding is applied, data

distribution is made possible at the same time from one file to terminals having different

performance see [0007] lines 1-8) Thus it would have been obvious to one of ordinary

skill in the art to implement the method of Itakura et al in the system of Dorward et al

.The method Dorward et al can be implemented on any type of method wherein the

communication device receives the plurality of blocks at different communication rates

which is taught by Itakura with a motivation to efficiently process data by referring to the

priority level information specified.

Regarding claim 53 Dorward et al discloses the communication method, wherein the

communication device is a proxy server (the server 104 may be distributed across

multiple machines. The approach of identifying data by a hash of its contents simplifies

such an extension. Such load balancing could even be hidden from the client

application by interposing a proxy server that performs this operation on behalf of the

client see [0076] lines 1-10).

Regarding claim 54 Dorward et al discloses the method, wherein the information

stored within the header comprises a sequence number and a block size (A given

block header 308 includes a "magic" number, the fingerprint of the data block, a user-

supplied type identifier, the size of the data block, the identity of the client device or

other user that wrote the data block, and the time when the block was first written, the

latter being denoted "wtime." See [0045] lines 1-6)

### *Claim Rejections - 35 USC § 103*

4.  The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

5.   Claims 2-5,7,9,12-13,18-21,23 and 25 ,and are rejected under 35 U.S.C. 103(a) as

being unpatentable over Dorward et al (US 20030018878 A1) in view of Firestone (US

6965646 B1).

  Regarding claim2 Dorward et al discloses a communication device (Fig. 2 shows

server 104), wherein the information for restoring the plurality of blocks to the original

data is stored in an option field (header 308 of fig. 3 shows fields) within the header

(Each data block is prefixed by a header, denoted headers.sub.0, header.sub.1, etc.that

describes the contents of the corresponding block.  The primary purpose of the block

header is to provide integrity checking during normal operation and to assist in data

recovery see [0043] lines 4-9)

Dorward et al does not discloses the header of the transport protocol .Firestone from

the same or similar endeavor teach (The network packet header includes additional

information useful for transmission in the network 106.  An input buffer 108 may also be

included for temporarily holding the data before streaming onto the network 106.  Upon

request, the network interface 105 sends the packetized RTP packets onto the network

106 in real-time see coln: 1 line 57-63). Thus it would have been obvious to one of

ordinary skill in the art to implement the method of Firestone in the system of Dorward

et al. The method of Dorward et al can be implemented on any type of method wherein

the header is a header of the transport protocol which is taught by Firestone with a

motivation in order to reformatting MPEG data within RTP packets and streams the data

onto the network for real-time playback.

Regarding claim3 Dorward et al discloses a communication device (Fig. 2 shows
server 104), wherein the processor (Fig. 2 shows a processor 200)

Dorward dose not disclose the processor further configured to execute instructions to
examine maximum values of a packet size allowed by a connection related to
communication and unify the smallest size among the packet size maximum values as
a maximum value of an allowable packet size. Firestone from the same or similar
endeavor teach (The packetizer 104 will fragment or aggregate media packets into
network packets according to their respective sizes.  Media packets are generally
described as constant-sized packets containing either video or audio data. Specifically,
if the size of a media packet in media file 102 is larger than the optimal network packet
size, the packetizer 104 will fragment the large media packet into two or more
successive network packets.  On the other hand, if the size of a media packet in media
file 102 is smaller than the optimal network packet size, packetizer 104 may aggregate
two or more media packets into a single network packet see col: 2 lines 49-59and fig.
1A). Thus it would have been obvious to one of ordinary skill in the art to implement the
method of Firestone in the system of Dorward et al. The method of Dorward et al can
be implemented on any type of method wherein the processor further configured to
execute instructions to examine maximum values of a packet size allowed by a
connection related to communication and unify the smallest size among the packet size
maximum values as a maximum value of an allowable packet size which is taught by
Firestone with a motivation to order to modify and reformat MPEG stream to facilitate
RTP packetization.

Regarding claim4 Dorward et al discloses a communication device (Fig. 2 shows server 104),

Dorward et al does not discloses wherein the processor is further configured to execute instructions to examine maximum values of a packet size allowed by a connection related to communication and communicate with a packet size equal to or less than the smallest size among the packet size maximum values. Firestone from the same or similar endeavor teach (The packetizer 104 will fragment or aggregate media packets into network packets according to their respective sizes. Media packets are generally described as constant-sized packets containing either video or audio data. Specifically, if the size of a media packet in media file 102 is larger than the optimal network packet size, the packetizer 104 will fragment the large media packet into two or more successive network packets. On the other hand, if the size of a media packet in media file 102 is smaller than the optimal network packet size, packetizer 104 may aggregate two or more media packets into a single network packet see col: 2 lines 49-59and fig. 1A). Thus it would have been obvious to one of ordinary skill in the art to implement the method of Firestone in the system of Dorward et al. The method of Dorward et al can be implemented on any type of method wherein the processor is further configured to execute instructions to examine maximum values of a packet size allowed by a connection related to communication and communicate with a packet size equal to or less than the smallest size among the packet size maximum values which is taught by Firestone with a motivation to order to modify and reformat MPEG stream to facilitate RTP packetization.

   Regarding claim5 Dorward et al discloses a communication device (Fig. 2 shows

server 104),

Dorward et al does not disclose wherein a data length is stored as information for

restoring the original data. Firestone from the same or similar endeavor teach

(the network packet information inside each GOP header 304 contains the starting byte

indexes and lengths of each RTP data packet from the GOP.  By knowing the

exactlocation of each MPEG file data packet, the streamer 250 may expeditiously copy

the data in blocks when repacketizing from the MPEG file to RTP packets see col: 10

lines 16-22). Thus it would have been obvious to one of ordinary skill in the art to

implement the method of Firestone in the system of Dorward et al. The method of

Dorward et al can be implemented on any type of method wherein a data length is

stored as information for restoring the original data which is taught by Firestone with a

motivation in order to modify and reformat MPEG stream to facilitate RTP packetization.

   Regarding claim7 Dorward et al discloses a communication device (Fig. 2 shows

server 104) Dorward et al does not disclose wherein the header is a header of the

transport protocol .Firestone from the same or similar endeavor teach (The network

packet header includes additional information useful for transmission in the network

106.  An input buffer 108 may also be included for temporarily holding the data before

streaming onto the network 106.  Upon request, the network interface 105 sends the

packetized RTP packets onto the network 106 in real-time see coln: 1 lines 57-63).

Thus it would have been obvious to one of ordinary skill in the art to implement the

method of Firestone in the system of Dorward et al. The method of Dorward et al can be

implemented on any type of method wherein the header is a header of the transport

protocol which is taught by Firestone with a motivation in order to reformatting MPEG

data within RTP packets and streams the data onto the network for real-time playback.

Regarding claim9 Dorward et al discloses a communication device (Fig. 2 shows

server 104), wherein the information stored within the header (Each data block is

prefixed by a header, denoted headers.sub.0, header.sub.1, etc.that describes the

contents of the corresponding block. The primary purpose of the block header is to

provide integrity checking during normal operation and to assist in data recovery see

[0043] lines 4-9)

Dorward et al does not discloses the stored in a part of a timestamp field of an option

field within the header .Firestone from the same or similar endeavor teach

(The RTP header contains RTP header information used by the streamer 250 before

the data is sent onto the network 204. In one embodiment, the RTP header may

include RTP header parameters specified later upon streaming. Subsequently, upon

transmission onto the network 204, these RTP header parameters may be modified by

the streamer 250. By way of example, each RTP packet sent onto the network 204

contains a sequence number and an RTP timestamp see coln: 12 lines 4-12) Thus it

would have been obvious to one of ordinary skill in the art to implement the method of

Firestone in the system of Dorward et al. The method of Dorward et al can be

implemented on any type of method the stored in a part of a timestamp field of an option

field within the header which is taught by Firestone with a motivation in order to

reformatting MPEG data within RTP packets and streams the data onto the network for

real-time playback.

   Regarding claim12 Dorward et al discloses a communication device (Fig. 2 shows

server 104),

Dorward et al does not diclose wherein the processor is configured to execute

instructions stored in the memory to examine Maximum Transfer Unit (MTU) usable by

the plurality of connections by a path MTU discovery option and unify MTU of the

respective connections to the smallest MTU obtained by the examination. Firestone

from the same or similar endeavor teach wherein the processor is configured to execute

instructions stored in the memory to examine Maximum Transfer Unit (MTU) ( The

segmentor 222 will create network packets that have as many bytes as possible without

going over the MTU size.  To create the network packets, the segmenter 222 reads data

out of the audio buffer 211 and video buffer 213.  Typically, the system stream 202, its

corresponding elementary video stream 210 and the elementary audio stream 208

contain constant sized MPEG packets.see coln: 8 lines 43-50)

usable by the plurality of connections by a path MTU discovery option and unify MTU of

the respective connections to the smallest MTU obtained by the examination (if the size

of a media packet in media file 102 is smaller than the optimal network packet size,

packetizer 104 may aggregate two or more media packets into a single network packet

see col: 2 lines 56-59. Thus it would have been obvious to one of ordinary skill in the art

to implement the method of Firestone in the system of Dorward et al. The method of

Dorward et al can be implemented on any type of method wherein the processor is

configured to execute instructions stored in the memory to examine Maximum Transfer

Unit (MTU) usable by the plurality of connections by a path MTU discovery option and

unify MTU of the respective connections to the smallest MTU obtained by the

examination which is taught by Firestone with a motivation in order to reformatting

MPEG data within RTP packets and streams the data onto the network for real-time

playback.

Regarding claim13 Dorward et al discloses a communication device (Fig. 2 shows

server 104), wherein the processor (Fig. 2 shows a processor 200) is configured to

execute instructions stored in the memory (memory 202 stores one or more software

programs which are executable by the processor 200 in conjunction with provision of

the archival data storage techniques see [0025] lines 7-10)

Dorward et al does not disclose refer to a data length to restore the plurality of blocks to

the original data. Firestone from the same or similar endeavor teach

(the network packet information inside each GOP header 304 contains the starting byte

indexes and lengths of each RTP data packet from the GOP.  By knowing the

exactlocation of each MPEG file data packet, the streamer 250 may expeditiously copy

the data in blocks when repacketizing from the MPEG file to RTP packets see col: 10

lines 16-22). Thus it would have been obvious to one of ordinary skill in the art to

implement the method of Firestone in the system of Dorward et al .The method of

Dorward et al can be implemented on any type of method refer to a data length to

restore the plurality of blocks to the original data which is taught by Firestone with a

motivation in order to modify and reformat MPEG stream to facilitate RTP packetization

Regarding claim18 Dorward et al discloses the method, wherein the information for restoring the plurality of blocks to the original data is stored in an option field header 308 of fig. 3 shows fields) within the header (Each data block is prefixed by a header, denoted headers.sub.0, header.sub.1, etc.that describes the contents of the corresponding block.  The primary purpose of the block header is to provide integrity checking during normal operation and to assist in data recovery see [0043] lines 4-9).

Dorward et al does not discloses the header of the transport protocol .Firestone from the same or similar endeavor teach (The network packet header includes additional information useful for transmission in the network 106.  An input buffer 108 may also be included for temporarily holding the data before streaming onto the network 106.  Upon request, the network interface 105 sends the packetized RTP packets onto the network 106 in real-time see coln: 1 lines 57-63). Thus it would have been obvious to one of ordinary skill in the art to implement the method of Firestone in the system of Dorward et al. The method of Dorward et al can be implemented on any type of method wherein the header is a header of the transport protocol which is taught by Firestone with a motivation in order to reformatting MPEG data within RTP packets and streams the data onto the network for real-time playback.

   Regarding claim19 Dorward et al discloses the method; further comprising using the communication device (Fig. 2 shows server 104)

Dorward dose not disclose the device to examine maximum values of a packet size allowed by a connection related to communication and unify the smallest size among the packet size maximum values as a maximum value of an allowable packet size.

Firestone from the same or similar endeavor teach (The packetizer 104 will fragment or

aggregate media packets into network packets according to their respective sizes.

Media packets are generally described as constant-sized packets containing either

video or audio data. Specifically, if the size of a media packet in media file 102 is larger

than the optimal network packet size, the packetizer 104 will fragment the large media

packet into two or more successive network packets.  On the other hand, if the size of a

media packet in media file 102 is smaller than the optimal network packet size,

packetizer 104 may aggregate two or more media packets into a single network packet

see col: 2 lines 49-59and fig. 1A). Thus it would have been obvious to one of ordinary

skill in the art to implement the method of Firestone in the system of Dorward et al. The

method of Dorward et al can be implemented on any type of method to examine

maximum values of a packet size allowed by a connection related to communication

and unify the smallest size among the packet size maximum values as a maximum

value of an allowable packet size which is taught by Firestone with a motivation to order

to modify and reformat MPEG stream to facilitate RTP packetization.

Regarding claim20 Dorward et al discloses the method, further comprising using the

communication device (Fig. 2 shows server 104),

Dorward et al does not discloses the device  to examine maximum values of a packet

size allowed by a connection related to communication and communicating with a

packet size equal to or less than the smallest size among the packet size maximum

values. Firestone from the same or similar endeavor teach (The packetizer 104 will

fragment or aggregate media packets into network packets according to their respective

sizes. Media packets are generally described as constant-sized packets containing

either video or audio data. Specifically, if the size of a media packet in media file 102 is

larger than the optimal network packet size, the packetizer 104 will fragment the large

media packet into two or more successive network packets. On the other hand, if the

size of a media packet in media file 102 is smaller than the optimal network packet size,

packetizer 104 may aggregate two or more media packets into a single network packet

see col: 2 lines 49-59and fig. 1A). Thus it would have been obvious to one of ordinary

skill in the art to implement the method of Firestone in the system of Dorward et al. The

method of Dorward et al can be implemented on any type of method to examine

maximum values of a packet size allowed by a connection related to communication

and communicating with a packet size equal to or less than the smallest size among the

packet size maximum values which is taught by Firestone with a motivation to order to

modify and reformat MPEG stream to facilitate RTP packetization.

  Regarding claim21 Dorward et al does not discloses the method, wherein a data

length is stored as the information for restoring the original data, Firestone from the

same or similar endeavor teach(the network packet information inside each GOP

header 304 contains the starting byte indexes and lengths of each RTP data packet

from the GOP. By knowing the exactlocation of each MPEG file data packet, the

streamer 250 may expeditiously copy the data in blocks when repacketizing from the

MPEG file to RTP packets see col: 10 lines 16-22). Thus it would have been obvious to

one of ordinary skill in the art to implement the method of Firestone in the system of

Dorward et al. The method of Dorward et al can be implemented on any type of method

wherein a data length is stored as information for restoring the original data which is

taught by Firestone with a motivation in order to modify and reformat MPEG stream to

facilitate RTP packetization.

   Regarding claim23 Dorward et al does not discloses the method, wherein the header

is a header of the transport protocol. Firestone from the same or similar endeavor

teach (The network packet header includes additional information useful for

transmission in the network 106. An input buffer 108 may also be included for

temporarily holding the data before streaming onto the network 106. Upon request, the

network interface 105 sends the packetized RTP packets onto the network 106 in real-

time see coln: 1 lines 57-63). Thus it would have been obvious to one of ordinary skill

in the art to implement the method of Firestone in the system of Dorward et al. The

method of Dorward et al can be implemented on any type of method wherein the

header is a header of the transport protocol which is taught by Firestone with a

motivation in order to reformatting MPEG data within RTP packets and streams the

data onto the network for real-time playback.

   Regarding claim 25 Dorward et al discloses the method, wherein the information

stored within the header (Each data block is prefixed by a header, denoted

headers.sub.0, header.sub.1, etc.that describes the contents of the corresponding

block. The primary purpose of the block header is to provide integrity checking during

normal operation and to assist in data recovery see [0043] lines 4-9)

Dorward et al does not discloses the stored in a part of a timestamp field of an option

field within the header .Firestone from the same or similar endeavor teach

(The RTP header contains RTP header information used by the streamer 250 before

the data is sent onto the network 204. In one embodiment, the RTP header may

include RTP header parameters specified later upon streaming. Subsequently, upon

transmission onto the network 204, these RTP header parameters may be modified by

the streamer 250. By way of example, each RTP packet sent onto the network 204

contains a sequence number and an RTP timestamp see coln: 12 lines 4-12) Thus it

would have been obvious to one of ordinary skill in the art to implement the method of

Firestone in the system of Dorward et al. The method of Dorward et al can be

implemented on any type of method stored in a part of a timestamp field of an option

field within the header which is taught by Firestone with a motivation in order to

reformatting MPEG data within RTP packets and streams the data onto the network for

real-time playback.

   Regarding claim28 Dorward et al discloses the method; further comprising using the

communication device (Fig. 2 shows server 104) to examine an MTU usable by the

plurality of connections by a path MTU discovery option and MTU of the respective

connections to the smallest MTU obtained by the examination.

Dorward et al does not disclose the device to examine an MTU usable by the plurality of

connections by a path MTU discovery option and MTU of the respective connections to

the smallest MTU obtained by the examination. Firestone  from the same or similar

endeavor teach the device to examine an MTU usable by the plurality of connections by

a path MTU discovery option and MTU of the respective connections to the smallest

MTU obtained by the examination (if the size of a media packet in media file 102 is

smaller than the optimal network packet size, packetizer 104 may aggregate two or

more media packets into a single network packet see col:2 lines 56-59 Thus it would

have been obvious to one of ordinary skill in the art to implement the method of

Firestone in the system of Dorward et al . The method of Dorward et al can be

implemented on any type of method to examine an MTU usable by the plurality of

connections by a path MTU discovery option and MTU of the respective connections to

the smallest MTU obtained by the examination. which is taught by Firestone with a

motivation in order to reformatting MPEG data within RTP packets and streams the data

onto the network for real-time playback.

   Regarding claim 29 Dorward et al discloses the method, further comprising using the

communication device (Fig. 2 shows server 104)

Dorward et al does not disclose refer to a data length to restore the plurality of blocks to

the original data. Firestone from the same or similar endeavor teach

(the network packet information inside each GOP header 304 contains the starting byte

indexes and lengths of each RTP data packet from the GOP.  By knowing the

exactlocation of each MPEG file data packet, the streamer 250 may expeditiously copy

the data in blocks when repacketizing from the MPEG file to RTP packets see col: 10

lines 16-22). Thus it would have been obvious to one of ordinary skill in the art to

implement the method of Firestone in the system of Dorward et al .The method of

Dorward et al can be implemented on any type of method refer to a data length to

restore the plurality of blocks to the original data which is taught by Firestone with a

motivation in order to modify and reformat MPEG stream to facilitate RTP packetization

6.   Claims 10-11,26-27and are rejected under 35 U.S.C. 103(a) as being unpatentable over Dorward et al (US 20030018878 A1) in view of Itakura et al   (20030118107 A1).


Regarding claim10 Dorward et al discloses a communication device (Fig. 2 shows server 104),

Dorward et al does not discloses wherein stored within the header is an IP header. Itakura et al from the same or similar endeavor teach (An IP header is further added to the packet to which the RTP header has been added. FIG. 14 shows details of the IP header in an IP packet.  The IP header includes a version, such as IPv4 or IPv6, a header length, a type-of-service (TOS) field which stores priority-level information, a packet length, an identification, a flag indicating control information related to data division (fragment) in an IP layer, a fragment offset indicating the location of divided (fragmented) data, time to live (TTL) indicating the information of time until the data is discarded see [0140] lines 1-10). Thus it would have been obvious to one of ordinary skill in the art to implement the method of Itakura et al in the system of Dorward et al. The method of Dorward et al can be implemented on any type of method wherein stored within the header is an IP header which is taught by Itakura with a motivation to efficiently process data by referring to the priority level information specified in an IP header.

Regarding claim11 Dorward et al discloses a communication device (Fig. 2 shows server 104),

Dorward et al does not disclose wherein information for restoring the plurality of blocks
to the original data is stored in a fragment field within an IP header. Itakura et al from
the same or similar endeavor teach (An IP header is further added to the packet to
which the RTP header has been added. FIG. 14 shows details of the IP header in an IP
packet. The IP header includes a version, such as IPv4 or IPv6, a header length, a
type-of-service (TOS) field which stores priority-level information, a packet length, an
identification, a flag indicating control information related to data division (fragment) in
an IP layer, a fragment offset indicating the location of divided (fragmented) data, time
to live (TTL) indicating the information of time until the data is discarded see [0140] lines
1-10). Thus it would have been obvious to one of ordinary skill in the art to implement
the method of Itakura et al in the system of Dorward et al. The method of Dorward et al
can be implemented on any type of method wherein information for restoring the
plurality of blocks to the original data is stored in a fragment field within an IP header
which is taught by Itakura with a motivation to efficiently process data by referring to the
priority level information specified in an IP header.

Regarding claim 26 Dorward et al does not discloses wherein stored within the
header is an IP header. Itakura et al from the same or similar endeavor teach (An IP
header is further added to the packet to which the RTP header has been added. FIG.
14 shows details of the IP header in an IP packet. The IP header includes a version,
such as IPv4 or IPv6, a header length, a type-of-service (TOS) field which stores
priority-level information, a packet length, an identification, a flag indicating control
information related to data division (fragment) in an IP layer, a fragment offset indicating

the location of divided (fragmented) data, time to live (TTL) indicating the information of

time until the data is discarded see [0140] lines 1-10). Thus it would have been obvious

to one of ordinary skill in the art to implement the method of Itakura et al in the system

of Dorward et al. The method of Dorward et al can be implemented on any type of

method wherein stored within the header is an IP header which is taught by Itakura with

a motivation to efficiently process data by referring to the priority level information

specified in an IP header.

   Regarding claim 27Dorward et al does not disclose wherein information for restoring

the plurality of blocks to the original data is stored in a fragment field within an IP

header. Itakura et al from the same or similar endeavor teach (An IP header is further

added to the packet to which the RTP header has been added.  FIG. 14 shows details

of the IP header in an IP packet.  The IP header includes a version, such as IPv4 or

IPv6, a header length, a type-of-service (TOS) field which stores priority-level

information, a packet length, an identification, a flag indicating control information

related to data division (fragment) in an IP layer, a fragment offset indicating the location

of divided (fragmented) data, time to live (TTL) indicating the information of time until

the data is discarded see [0140] lines 1-10). Thus it would have been obvious to one of

ordinary skill in the art to implement the method of Itakura et al in the system of Dorward

et al. The method of Dorward et al can be implemented on any type of method wherein

information for restoring the plurality of blocks to the original data is stored in a fragment

field within an IP header which is taught by Itakura with a motivation to efficiently

process data by referring to the priority level information specified in an IP header.

7.  Claims 16 and 32 and are rejected under 35 U.S.C. 103(a) as being unpatentable

over Dorward et al (US 20030018878 A1) in view of Asai (US 20030169759 A1).


    Regarding claim16 Dorward et al discloses a communication device (Fig. 2 shows

server 104), a function wherein the processor (Fig. 2 shows a processor 200)

Dorward et al does not disclose the processor is further configured to execute

instructions to reduce a volume of data to be transferred to when a TCP communication

rate is low, and increase the volume of data to be transferred to when the TCP

communication rate becomes high. Asai from the same or similar endeavor teach (the

processing performed by the receiving end communication equipment, the received

data is temporarily transferred to the receiving window and then transferred to the buffer

designated by the application task.  As a

result, the number of times of data transfer increases.  Due to this, load on the CPU and

hardware necessary for the TCP/IP protocol processing increases to thereby

disadvantageously increase power consumption, and it is difficult to secure an empty

size in the receiving window of the receiving end communication equipment to thereby

disadvantageously decrease data communication rate see[0008]. Thus it would have

been obvious to one of ordinary skill in the art to implement the method of Asai in the

system of Dorward et al. The method of Dorward et al can be implemented on any type

of method the processor is further configured to execute instructions to reduce a volume

of data to be transferred to when a TCP communication rate is low, and increase the

volume of data to be transferred to when the TCP communication rate becomes high

which is taught by Asai with a motivation to increasing a communication processing rate

if data is received from a network using TCP/IP.

Regarding claim 32 Dorward et al discloses the method, further comprising using the

communication device (Fig. 2 shows server 104)

Dorward et al does not disclose the device to reduce a volume of data to be transferred

to when a TCP communication rate is low, and increase the volume of data to be

transferred to each connection at one time when the TCP communication rate becomes

high. Asai from the same or similar endeavor teach (the processing performed by the

receiving end communication equipment, the received data is temporarily transferred to

the receiving window and then transferred to the buffer designated by the application

task. As a result, the number of times of data transfer increases. Due to this, load on

the CPU and hardware necessary for the TCP/IP protocol processing increases to

thereby disadvantageously increase power consumption, and it is difficult to secure an

empty size in the receiving window of the receiving end communication equipment to

thereby disadvantageously decrease data communication rate see[0008]. Thus it would

have been obvious to one of ordinary skill in the art to implement the method of Asai in

the system of Dorward et al. The method of Dorward et al can be implemented on any

type of method wherein the device to reduce a volume of data to be transferred to when

a TCP communication rate is low, and increase the volume of data to be transferred to

each connection at one time when the TCP communication rate becomes high which is

taught by Asai with a motivation to increasing a communication processing rate if data is received from a network using TCP/IP.


8.   Claims 35-37 and are rejected under 35 U.S.C. 103(a) as being unpatentable over Itakura et al (20030118107 A1) in view of Dorward et al (US 20030018878 A1) as applied in claim 33 above and further in view of Firestone (US 6965646 B1).

Regarding claim 35 Itakura et al disclose a computer program product (A computer program according to the present invention can be provided, for example, for general-purpose computer systems which can execute various program codes, by storage media, communication media, such as networks, and recording media, such as CDs, FDs, and MOs, in a computer-readable form.  When the program is provided in a computer-readable form, the computer system executes processing according to the program see [0072]),

Itakura et al and Dorward et al  does not disclose further comprising computer code for examining maximum values of a packet size allowed by a connection related to communication and comprising computer code for unifying the smallest size among the packet size maximum values as a maximum value of an allowable packet size.

Firestone from the same or similar endeavor teach (The packetizer 104 will fragment or aggregate media packets into network packets according to their respective sizes. Media packets are generally described as constant-sized packets containing either video or audio data. Specifically, if the size of a media packet in media file 102 is larger than the optimal network packet size, the packetizer 104 will fragment the large media

packet into two or more successive network packets. On the other hand, if the size of a

media packet in media file 102 is smaller than the optimal network packet size,

packetizer 104 may aggregate two or more media packets into a single network packet

see col: 2 lines 49-59and fig. 1A) .Thus it would have been obvious to one of ordinary

skill in the art to implement the method of Firestone in the system of Itakura et al and

Dorward et al. The method of Itakura et al and Dorward et al can be implemented on

any type of method further comprising computer code for examining maximum values of

a packet size allowed by a connection related to communication and comprising

computer code for unifying the smallest size among the packet size maximum values as

a maximum value of an allowable packet size which is taught by Firestone with a

motivation to order to modify and reformat MPEG stream to facilitate RTP packetization.

    Regarding claim 36 Itakura et al disclose a computer program product (A computer

program according to the present invention can be provided, for example, for general-

purpose computer systems which can execute various program codes, by storage

media, communication media, such as networks, and recording media, such as CDs,

FDs, and MOs, in a computer-readable form. When the program is provided in a

computer-readable form, the computer system executes processing according to the

program see [0072]),

Itakura et al and Dorward et al  does not disclose further comprising computer code for

examining maximum values of a packet size allowed by a connection related to

communication and comprising computer code for communicating with a packet size

equal to or less than the smallest size among the packet size maximum values.

Firestone from the same or similar endeavor teach (The packetizer 104 will fragment or

aggregate media packets into network packets according to their respective sizes.

Media packets are generally described as constant-sized packets containing either

video or audio data. Specifically, if the size of a media packet in media file 102 is larger

than the optimal network packet size, the packetizer 104 will fragment the large media

packet into two or more successive network packets.  On the other hand, if the size of a

media packet in media file 102 is smaller than the optimal network packet size,

packetizer 104 may aggregate two or more media packets into a single network packet

see coln: 2 lines 49-59and fig. 1A). Thus it would have been obvious to one of ordinary

skill in the art to implement the method of Firestone in the system of Itakura et al and

Dorward et al. The method of Itakura et al and Dorward et al can be implemented on

any type of method further comprising computer code for examining maximum values of

a packet size allowed by a connection related to communication and comprising

computer code for communicating with a packet size equal to or less than the smallest

size among the packet size maximum values which is taught by Firestone with a

motivation to order to modify and reformat MPEG stream to facilitate RTP packetization.

   Regarding claim 37 Itakura et al disclose a computer program product (A computer

program according to the present invention can be provided, for example, for general-

purpose computer systems which can execute various program codes, by storage

media, communication media, such as networks, and recording media, such as CDs,

FDs, and MOs, in a computer-readable form.  When the program is provided in a

computer-readable form, the computer system executes processing according to the

program see [0072]),

Itakura et al and Dorward et al does not disclose further comprising computer code for

storing a data length as the information for restoring the original data. Firestone from the

same or similar endeavor teach (the network packet information inside each GOP

header 304 contains the starting byte indexes and lengths of each RTP data packet

from the GOP. By knowing the exactlocation of each MPEG file data packet, the

streamer 250 may expeditiously copy the data in blocks when repacketizing from the

MPEG file to RTP packets see col: 10 lines 16-22). Thus it would have been obvious to

one of ordinary skill in the art to implement the method of Firestone in the system of

Itakura et al and Dorward et al .the method of Itakura et al and Dorward et al can be

implemented on any type of method wherein a data length is stored as information for

restoring the original data which is taught by Firestone with a motivation in order to

modify and reformat MPEG stream to facilitate RTP packetization.


9.  Claims 48 and are rejected under 35 U.S.C. 103(a) as being unpatentable over

Itakura et al (20030118107 A1) in view of Dorward et al (US 20030018878 A1) as

applied in claim 33 above and further in view of Asai (US 20030169759 A1).


   Regarding claim 48 Itakura et al disclose a computer program product further

comprising computer code (A computer program according to the present invention can

be provided, for example, for general-purpose computer systems which can execute

various program codes, by storage media, communication media, such as networks,

and recording media, such as CDs, FDs, and MOs, in a computer-readable form. When

the program is provided in a computer-readable form, the computer system executes

processing according to the program see [0072])

Itakura et al and Dorward et al does not disclose for a volume of data to be transferred

when a TCP communication rate is low, to increasing the volume of data to be

transferred when the TCP communication rate becomes high. Asai from the same or

similar endeavor teach (the processing performed by the receiving end communication

equipment, the received data is temporarily transferred to the receiving window and

then transferred to the buffer designated by the application task. As a result, the

number of times of data transfer increases. Due to this, load on the CPU and hardware

necessary for the TCP/IP protocol processing increases to thereby disadvantageously

increase power consumption, and it is difficult to secure an empty size in the receiving

window of the receiving end communication equipment to thereby disadvantageously

decrease data communication rate see[0008]. Thus it would have been obvious to one

of ordinary skill in the art to implement the method of Asai in the system of Itakura et al

and Dorward et al .The method of Itakura et al and Dorward et al can be implemented

on any type of method for a volume of data to be transferred when a TCP

communication rate is low, to increasing the volume of data to be transferred when the

TCP communication rate becomes high which is taught by Asai with a motivation to

increasing a communication processing rate if data is received from a network using

TCP/IP.

10.  Claims 33-34,38-39,42-43,46,49,52,55-57  are rejected under 35 U.S.C. 103(a) as

being unpatentable over Itakura et al   (20030118107 A1) in view of Dorward et al (US

20030018878 A1).


    Regarding claim33 Itakura et al discloses a computer program product embodied on

a computer- readable storage medium, comprising: (A computer program according to

the present invention can be provided, for example, for general-purpose computer

systems which can execute various program codes, by storage media, communication

media, such as networks, and recording media, such as CDs, FDs, and MOs, in a

computer-readable form.  When the program is provided in a computer-readable form,

the computer system executes processing according to the program see [0072])

Itakura et al  does not discloses computer code for dividing original data into a plurality

of blocks; and computer code for storing information within a header for restoring the

plurality of blocks to the original data. Dorward et al discloses from the same or similar

endeavor teach computer code for dividing original data into a plurality of blocks (the

server 104, the storage of data blocks is separated from the index used to locate the

blocks, as is also apparent from FIG. 1.  More particularly, blocks are stored in an

append-only log on storage element 116. See [0041] lines1-5 and Fig. 5); and

computer code for storing information within a header for restoring the plurality of

blocks to the original data (Each data block is prefixed by a header, denoted

headers.sub.0, header.sub.1; etc.that describes the contents of the corresponding

block. The primary purpose of the block header is to provide integrity checking during normal operation and to assist in data recovery see [0043] lines 4-9). Thus it would have been obvious to one of ordinary skill in the art to implement the method of Dorward et al in the system of Itakura et al the method of Itakura et al can be implemented in any type of method wherein computer code for dividing original data into a plurality of blocks; and computer code for storing information within a header for restoring the plurality of blocks to the original data which is taught by Dorward et al with a motivation in order to provide a substantially unique identifier of the data block by applying a collision-resistant hash function to the contents of the data block by utilizing the identifier to perform a lookup of the address in an index.

Regarding claim 34 note that Itakura et al discloses modified by Dorward et al teach the computer program product (Itakura et al: A computer program according to the present invention can be provided, for example, for general-purpose computer systems which can execute various program codes, by storage media, communication media, such as networks, and recording media, such as CDs, FDs, and MOs, in a computer-readable form. When the program is provided in a computer-readable form, the computer system executes processing according to the program see [0072]) the information for restoring the plurality of blocks to the original data is stored in an option field (Dorward et al :Each data block is prefixed by a header, denoted headers.sub.0, header.sub.1, etc.that describes the contents of the corresponding block. The primary purpose of the block header is to provide integrity checking during normal operation and to assist in data recovery see [0043] lines 4-9) within the header of the transport

protocol (Itakura et al: The data transmission apparatus may be configured such that

the packet generation parts specify the priority-level information corresponding to the

layer of the scalable-encoded data of the image signal, in an RTP header see [0030]

lines 1-5)

Regarding claim 38 Itakura et al disclose a computer program product embodied

on a computer- readable storage medium comprising; (A computer program according

to the present invention can be provided, for example, for general-purpose computer

systems which can execute various program codes, by storage media, communication

media, such as networks, and recording media, such as CDs, FDs, and MOs, in a

computer-readable form.  When the program is provided in a computer-readable form,

the computer system executes processing according to the program see [0072])

Itakura et al  does not discloses computer code for receiving a plurality of blocks and,

based on information stored within a header; and computer code for restoring the

plurality of blocks to original data . Dorward et al from the same or similar endeavor

teach ((Each data block is prefixed by a header, denoted headers.sub.0, header.sub.1;

etc.that describes the contents of the corresponding block.  The primary purpose of the

block header is to provide integrity checking during normal operation and to assist in

data recovery see [0043] lines 4-9) Thus it would have been obvious to one of ordinary

skill in the art to implement the method of Dorward et al in the system of Itakura et al

the method of Itakura et al  can be implemented in any type of method for receiving a

plurality of blocks and, based on information stored within a header; and computer

code for restoring the plurality of blocks to original data which is taught by Dorward et

al with a motivation in order to provide a substantially unique identifier of the data block

by applying a collision-resistant hash function to the contents of the data block by

utilizing the identifier to perform a lookup of the address in an index.

Regarding claim 39 note that Itakura et al disclose a computer program product (A

computer program according to the present invention can be provided, for example, for

general-purpose computer systems which can execute various program codes, by

storage media, communication media, such as networks, and recording media, such as

CDs, FDs, and MOs, in a computer-readable form.  When the program is provided in a

computer-readable form, the computer system executes processing according to the

program see [0072]), wherein the header is a header of the transport protocol (The

data transmission apparatus may be configured such that the packet generation parts

specify the priority-level information corresponding to the layer of the scalable-encoded

data of the image signal, in an RTP header see [0030] lines 1-5)

Regarding claim 42 note that Itakura et al disclose a computer program product (A

computer program according to the present invention can be provided, for example, for

general-purpose computer systems which can execute various program codes, by

storage media, communication media, such as networks, and recording media, such as

CDs, FDs, and MOs, in a computer-readable form.  When the program is provided in a

computer-readable form, the computer system executes processing according to the

program see [0072]),

Wherein the header is an IP header (An IP header is further added to the packet to

which the RTP header has been added.  FIG. 14 shows details of the IP header in an IP

packet. The IP header includes a version, such as IPv4 or IPv6, a header length, a type-of-service (TOS) field which stores priority-level information see [0140] lines 1-6)

Regarding claim 43 note that Itakura et al disclose a computer program product (A computer program according to the present invention can be provided, for example, for general-purpose computer systems which can execute various program codes, by storage media, communication media, such as networks, and recording media, such as CDs, FDs, and MOs, in a computer-readable form. When the program is provided in a computer-readable form, the computer system executes processing according to the program see [0072]),,

wherein information for restoring the plurality of blocks to the original data is stored in a fragment field within an IP header (An IP header is further added to the packet to which the RTP header has been added. FIG. 14 shows details of the IP header in an IP packet. The IP header includes a version, such as IPv4 or IPv6, a header length, a type-of-service (TOS) field which stores priority-level information, a packet length, an identification, a flag indicating control information related to data division (fragment) in an IP layer, a fragment offset indicating the location of divided (fragmented) data, time to live (TTL) indicating the information of time until the data is discarded, a protocol (IP: 4, TCP: 7, UDP: 17, . . . ) used in an upper layer, a header checksum, a source IP address, and a destination IP address see [0140] lines 1-12)

Regarding claim 46 note that Itakura et al disclose the computer program product further comprising computer code (A computer program according to the present invention can be provided, for example, for general-purpose computer systems which

can execute various program codes, by storage media, communication media, such as

networks, and recording media, such as CDs, FDs, and MOs, in a computer-readable

form. When the program is provided in a computer-readable form, the computer system

executes processing according to the program see [0072])

Also note that Dorward et al teaches for transferring the plurality of blocks based on

communication rate (The write performance of the server is therefore limited to the

random access performance of the index 114, speedup in throughput can be achieved

by striping the index see [0055] lines 8-15)

    Regarding claim52Dorward et al does not disclose the method wherein the

communication device receives the plurality of blocks at different communication rates.

Itakura et al from the same or similar endeavor teach (it is necessary for atransmission

side to generate data having different formats corresponding to the performance of data

receiving terminals or to prepare different data at the transmission rates of the data

receiving terminals. When the above-described scalable encoding is applied, data

distribution is made possible at the same time from one file to terminals having different

performance see [0007] lines 1-8) Thus it would have been obvious to one of ordinary

skill in the art to implement the method of Itakura et al in the system of Dorward et al

.The method Dorward et al can be implemented on any type of method wherein the

communication device receives the plurality of blocks at different communication rates

which is taught by Itakura with a motivation to efficiently process data by referring to the

priority level information specified.

Regarding claim 55 note that Itakura et al disclose a computer program product (A computer program according to the present invention can be provided, for example, for general-purpose computer systems which can execute various program codes, by storage media, communication media, such as networks, and recording media, such as CDs, FDs, and MOs, in a computer-readable form. When the program is provided in a computer-readable form, the computer system executes processing according to the program see [0072]), wherein the plurality of blocks are received at different communication rates teach (it is necessary for atransmission side to generate data having different formats corresponding to the performance of data receiving terminals or to prepare different data at the transmission rates of the data receiving terminals. When the above-described scalable encoding is applied, data distribution is made possible at the same time from one file to terminals having different performance see [0007] lines 1-8)

Regarding claim 56 note that Itakura et al disclose a computer program product, wherein the computer-readable storage medium (A computer program according to the present invention can be provided, for example, for general-purpose computer systems which can execute various program codes, by storage media, communication media, such as networks, and recording media, such as CDs, FDs, and MOs, in a computer-readable form. When the program is provided in a computer-readable form, the computer system executes processing according to the program see [0072]), Also note Dorward et al teaches is a proxy server (the server 104 may be distributed across multiple machines. The approach of identifying data by a hash of its contents simplifies

such an extension. Such load balancing could even be hidden from the client application by interposing a proxy server that performs this operation on behalf of the client see [0076] lines 1-10).

Regarding claim57 note that Itakura et al disclose a computer program product (A computer program according to the present invention can be provided, for example, for general-purpose computer systems which can execute various program codes, by storage media, communication media, such as networks, and recording media, such as CDs, FDs, and MOs, in a computer-readable form. When the program is provided in a computer-readable form, the computer system executes processing according to the program see [0072]). Also note that Dorward et al teaches wherein the information stored within the header comprises a sequence number and a block size (A given block header 308 includes a "magic" number, the fingerprint of the data block, a user-supplied type identifier, the size of the data block, the identity of the client device or other user that wrote the data block, and the time when the block was first written, the latter being denoted "wtime." See [0045] lines 1-6)

### Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

(US 7042907 B2), (Matsunaga) discloses, Packet transfer apparatus and method.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to KHALID ABDALLA whose telephone number is (571)270-7526. The examiner can normally be reached on Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Dang Ton can be reached on 571-272-3171.  The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

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